

Circuit breaker size S00 for motor protection, CLASS 10 A-release
0.7...1 A N-release 13 A Screw terminal Standard switching capacity



Product brand name	SIRIUS
Product designation	Circuit breaker
Design of the product	For motor protection
Product type designation	3RV1
General technical data	
Size of the circuit-breaker	S00
Size of contactor can be combined company-specific	S00
Product extension	
• Auxiliary switch	Yes
Power loss [W] for rated value of the current	
• at AC in hot operating state	5.5 W
• at AC in hot operating state per pole	1.8 W
Insulation voltage with degree of pollution 3 rated value	690 V
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
• in networks with grounded star point between main and auxiliary circuit	400 V

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Protection class IP	
• on the front	IP20
• of the terminal	IP00
Mechanical service life (switching cycles)	
• of the main contacts typical	100 000
• of auxiliary contacts typical	100 000
Electrical endurance (switching cycles)	
• typical	100 000
Type of protection according to ATEX directive 2014/34/EU	Ex II (2) GD
Certificate of suitability according to ATEX directive 2014/34/EU	DMT 02 ATEX F 001
Reference code acc. to DIN EN 81346-2	Q

Ambient conditions

Installation altitude at height above sea level	
• maximum	2 000 m
Ambient temperature	
• during operation	-20 ... +60 °C
• during storage	-50 ... +80 °C
• during transport	-50 ... +80 °C
Temperature compensation	-20 ... +60 °C
Relative humidity during operation	10 ... 95 %

Main circuit

Number of poles for main current circuit	3
Adjustable pick-up value current of the current-dependent overload release	0.7 ... 1 A
Operating voltage	
• rated value	690 V
• at AC-3 rated value maximum	690 V
Operating frequency rated value	50 ... 60 Hz
Operating current rated value	1 A
Operating current	
• at AC-3	
— at 400 V rated value	1 A
Operating power	
• at AC-3	
— at 230 V rated value	120 W
— at 400 V rated value	250 W
— at 500 V rated value	370 W
— at 690 V rated value	550 W

Operating frequency	
• at AC-3 maximum	15 1/h
Auxiliary circuit	
Number of CO contacts	
• for auxiliary contacts	0
Protective and monitoring functions	
Product function	
• Ground fault detection	No
• Phase failure detection	Yes
Trip class	CLASS 10
Design of the overload release	thermal
Operational short-circuit current breaking capacity (Ics) at AC	
• at 240 V rated value	100 000 A
• at 400 V rated value	100 000 A
• at 500 V rated value	100 000 A
• at 690 V rated value	100 000 A
Maximum short-circuit current breaking capacity (Icu)	
• at AC at 240 V rated value	100 kA
• at AC at 400 V rated value	100 kA
• at AC at 500 V rated value	100 kA
• at AC at 690 V rated value	100 kA
Response value current	
• of instantaneous short-circuit trip unit	13 A
UL/CSA ratings	
Full-load current (FLA) for three-phase AC motor	
• at 480 V rated value	1 A
• at 600 V rated value	1 A
Yielded mechanical performance [hp]	
• for three-phase AC motor — at 575/600 V rated value	0.5 hp
Short-circuit protection	
Product function Short circuit protection	Yes
Design of the short-circuit trip	magnetic
Design of the fuse link for IT network for short-circuit protection of the main circuit	
• at 240 V	none required
• at 400 V	gL/gG 10 A
• at 500 V	gL/gG 10 A
• at 690 V	gL/gG 10 A

Installation/ mounting/ dimensions	
Mounting position	any
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
Height	90 mm
Width	45 mm
Depth	75 mm
Connections/ Terminals	
Product function	No
removable terminal for auxiliary and control circuit	
Type of electrical connection	screw-type terminals
for main current circuit	
Arrangement of electrical connectors for main current circuit	Top and bottom
Type of connectable conductor cross-sections	
for main contacts	
— single or multi-stranded	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), 2x (1 ... 4 mm ²)
— finely stranded with core end processing	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
Type of connectable conductor cross-sections	
for auxiliary contacts	
— single or multi-stranded	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²)
Tightening torque	
for main contacts with screw-type terminals	0.8 ... 1.2 N·m
for auxiliary contacts with screw-type terminals	0.8 ... 1.2 N·m
Size of the screwdriver tip	Pozidriv 2
Design of the thread of the connection screw	
for main contacts	M3
Safety related data	
B10 value	
with high demand rate acc. to SN 31920	5 000
Proportion of dangerous failures	
with low demand rate acc. to SN 31920	50 %
with high demand rate acc. to SN 31920	50 %
Failure rate [FIT]	
with low demand rate acc. to SN 31920	50 FIT
Display version	
for switching status	Rocker switch
Certificates/ approvals	

General Product Approval	For use in hazardous locations
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Declaration of Conformity	Test Certificates	Marine / Shipping
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[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping	other
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[Confirmation](#)

[Miscellaneous](#)

other	Railway
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[Special Test Certificate](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV1011-0JA10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-0JA10>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-0JA10>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

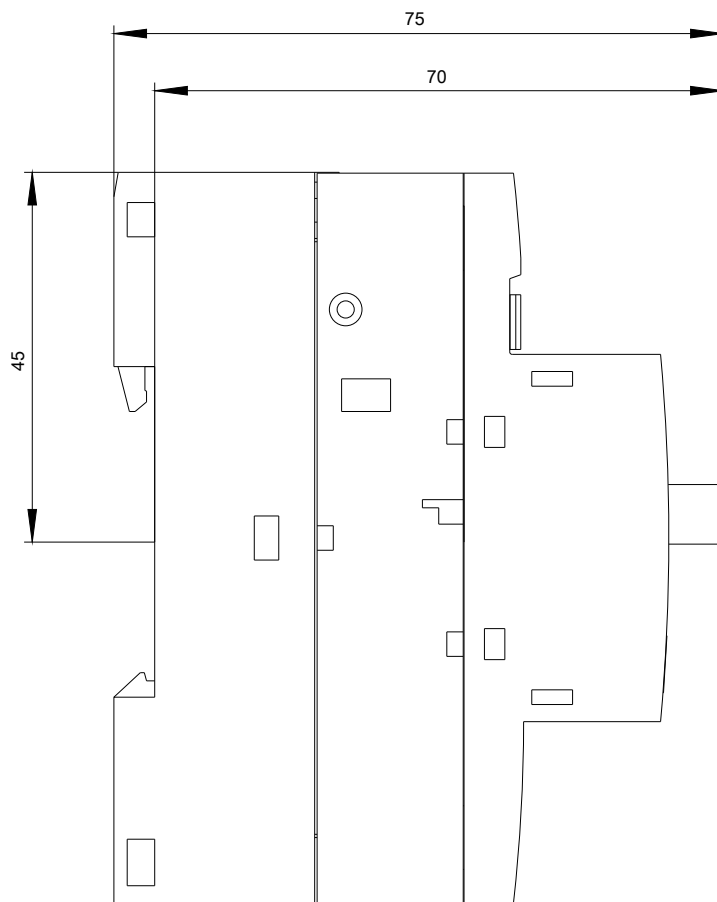
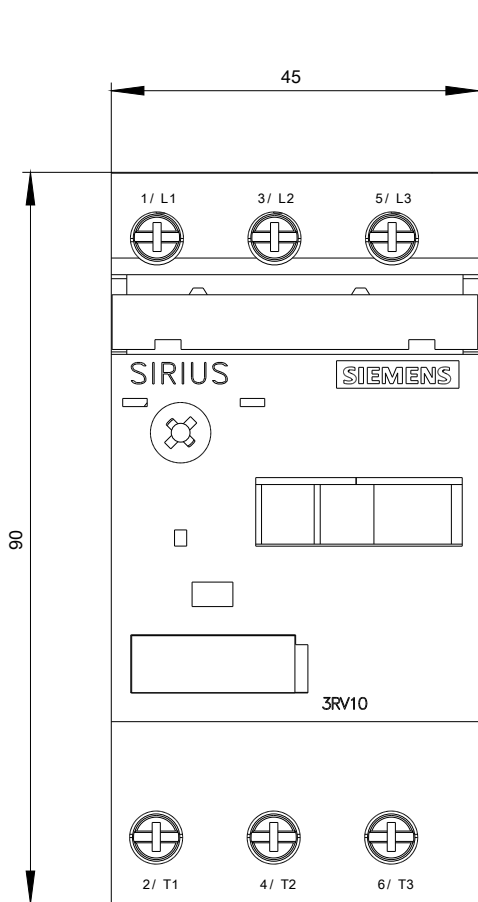
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-0JA10&lang=en

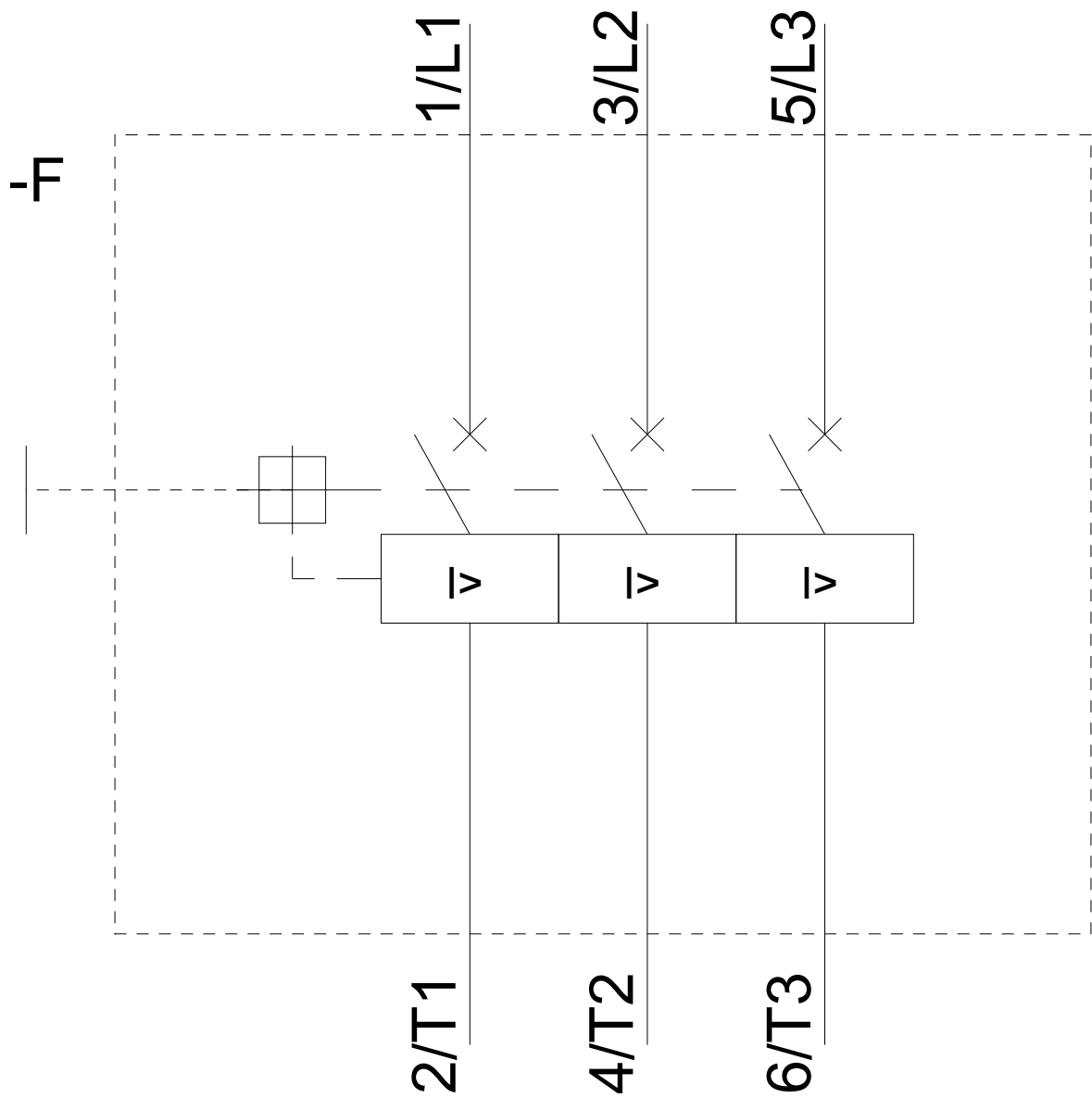
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-0JA10/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV1011-0JA10&objecttype=14&gridview=view1>





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